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Comprehensive review of the whole question of peacekeeping operations in all their aspects

Administrative and budgetary aspects of the financing of the United Nations peacekeeping operations

The concept of strategic deployment stocks and its implementation

Report of the Secretary-General*

Summary

Establishing a rapid deployment capability was a cornerstone recommendation of the Panel on United Nations Peace Operations (see A/55/305-S/2000/809, paras. 84-169). In response, the Secretary-General proposed a strategic reserve for peacekeeping operations to rapidly support opportunities for peace. The strategic reserve concept has four major components: (a) standby arrangements for troops and police; (b) rosters of key civilian staff; (c) material stocks at the United Nations Logistics Base at Brindisi; and (d) pre-mandate financial commitment authority.

The present report focuses on two of the four aspects of this strategic reserve: a material reserve — strategic deployment stocks — and pre-mandate commitment authority.

The actions to be taken by the General Assembly at its fifty-sixth session in connection with the implementation of the concept of strategic deployment stocks and pre-mandate commitment authority are set out in paragraph 38 of the present report.

* In accordance with General Assembly resolution 56/242, if a report is submitted late to conference services, the reasons therefor should be included in a footnote to the document. The required footnote was not included in this submission.

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Contents

		Paragraphs	Page
I.	The concept of strategic deployment stocks and its implementation	1–19	3
	A. Introduction	1–3	3
	B. Rapid deployment and a strategic reserve	4–5	4
	C. Planning assumptions	6–9	6
	D. Developing requirements for strategic deployment stocks	10–13	7
	E. Operation and management of strategic deployment stocks	14–15	7
	F. Use of contractual services	16–17	8
	G. The United Nations Logistics Base at Brindisi and strategic deployment stocks	18–19	9
II.	Budgetary requirements	20	9
III.	Staffing requirements	21	9
IV.	Financing modalities	22–35	9
	A. Financing of the strategic deployment stocks	22–23	9
	B. Replenishment of the strategic deployment stocks	24–27	10
	C. Pre-mandate commitment authority	28–35	10
V.	Actions to be taken by the General Assembly	36	14
Annexes			
I.	Cost estimates for the period 1 July 2002 to 30 June 2003		15
II.	Supplementary information		16

I. The concept of strategic deployment stocks and its implementation

A. Introduction

1. The lack of a rapid deployment capability has been repeatedly identified as a major weakness in United Nations peacekeeping operations. As a result, the Organization has often missed opportunities to provide effective support in the critical initial phase of such operations. In its report (see A/55/305-S/2000/809), the Panel on United Nations Peace Operations addressed this weakness and recommended the development of a capability for the rapid deployment of peacekeeping missions within 30 or 90 days (30 days for a traditional mission and 90 days for a complex mission).

2. In response, the Secretary-General proposed the concept of a strategic reserve in his report on the implementation of the recommendations of the Special Committee on Peacekeeping Operations and the Panel on United Nations Peace Operations (A/55/977). Subsequently, the Special Committee urged the Secretariat to work towards the goal of rapid deployment within a 30/90 day time frame and endorsed the concept of a strategic reserve, including a material reserve; the medium-sized reserve was considered the most appropriate and practical (see A/55/1024, para. 66).

3. At the suggestion of the Special Committee, the Secretariat held informal consultations with Committee members on 11 and 12 October 2001. A number of views and positions were expressed during these consultations, as follows:

(a) Appreciation was expressed for the detailed explanation provided regarding the identification of the items required for the strategic deployment stocks;

(b) Some expressed the view that, in the preparation of a detailed budget for the strategic reserve, the planning assumption for deploying one complex mission could be used, while others expressed the view that the planning assumption for two missions — one complex, one traditional — should be maintained;

(c) Support was expressed for the basic criteria for developing the list of equipment for the strategic deployment stocks, and it was recognized that the expertise existed in the Secretariat to draw up the detailed requirements;

(d) It was recognized that there is a need to store key mission start-up equipment items requiring long production, procurement and delivery times, while other items are procured through the use of systems contracts;

(e) The crucial importance of an advance commitment authority prior to the formal authorization of a mandate by the Security Council was recognized;

(f) The critical role of the United Nations Logistics Base at Brindisi (UNLB) in support of the strategic deployment stocks and the need for enhancing the Base's capacity was also recognized;

(g) Appreciation was expressed for the intention of the Secretariat to further the consultative process in order to benefit from the expertise of Member States.

B. Rapid deployment and a strategic reserve

4. The objective of a strategic reserve is to provide the Organization with the capability to deploy peacekeeping missions within the rapid deployment time frames. In this regard, the Secretary-General has identified the main components of peacekeeping operations as follows:

(a) Standby arrangements with Member States for military and civilian police personnel;

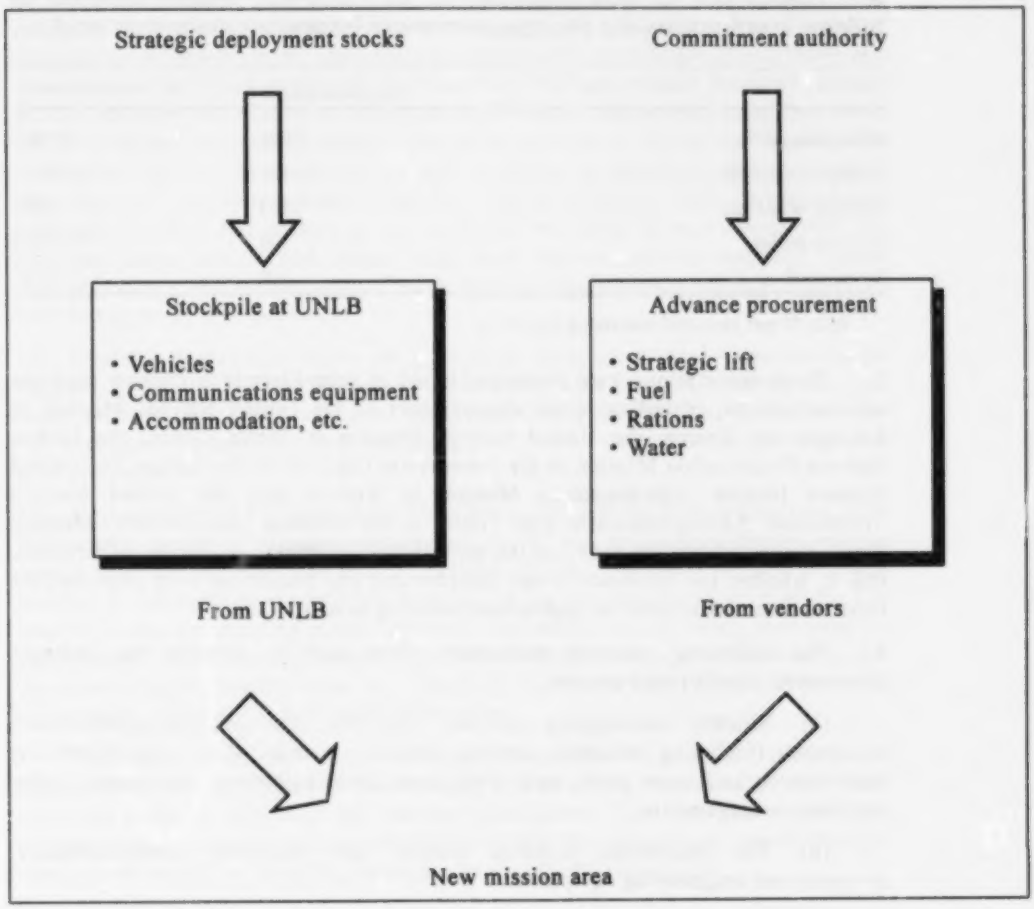
(b) A standby roster of key civilian personnel;

(c) A material reserve (involving such items as vehicles, communications equipment and accommodation), called strategic deployment stocks, which will be stored at UNLB;

(d) A financial commitment authority (pre-mandate commitment authority) for new missions to initiate contracts to provide services (such as strategic lift and port operations) and critical items (such as rations, fuel and water) prior to the approval of a mission mandate by the Security Council.

5. Of these four critical components, the material reserve and the financial commitment authority are covered in this report. Existing arrangements and procedures do not allow the Organization to meet the rapid deployment time frame in these areas. The Secretary-General proposed the medium-sized material reserve in his report (see A/55/977, para. 124). The Secretariat will procure key items, such as vehicles, communications and engineering equipment, accommodations and ablution units, and store them at UNLB as strategic deployment stocks. Other critical items and services, such as strategic lift, fuel, rations and water, will be procured through contractual arrangements before the adoption of a Security Council resolution establishing a new mission (see figure 1).

Figure 1
Logistics support for a new mission



C. Planning assumptions

6. Mission profiles were established for traditional and complex missions, as follows, in order to develop planning assumptions for strategic deployment stocks:

	Traditional mission	*Complex mission*
Troop strength[a]	5 000	10 000
International staff	175	375
Military observers	200	500
Civilian police	100	500
Local staff	300	575

[a] With 50 per cent self-sustaining capability.

7. These assumptions were developed based on recent trends in mission start-ups and expansions, including recent deployments of the United Nations Mission in Ethiopia and Eritrea, the United Nations Mission in Sierra Leone, the United Nations Organization Mission in the Democratic Republic of the Congo, the United Nations Interim Administration Mission in Kosovo and the United Nations Transitional Administration in East Timor. In the informal consultations, Member States expressed varying views on the assumption regarding the number of missions, that is, whether two missions — one complex and one traditional — or one complex mission alone constituted an appropriate planning assumption.

8. The following planning parameters were used to develop the strategic deployment stocks requirements:

(a) Military contingents provide 100 per cent of contingent-owned equipment (including weapons, combat vehicles, second-, third- and fourth-line maintenance and spare parts, and lower-level communications equipment) under wet-lease arrangements;

(b) The Secretariat provides second- and third-line communications, transport and engineering equipment;

(c) Combat support elements are mission-dependent and provided under wet-lease arrangements;

(d) Contingents are self-sustaining for at least 50 per cent of equipment/materiel;

(e) Strategic deployment stock expendables (such as office, cleaning and medical supplies) sustain operations for the first 60 days;

(f) Levels of strategic deployment stocks are determined by requirement date and lead time for procurement and delivery (including in-theatre).

9. Strategic deployment stocks will provide the minimum operational capability whereby, within 30 or 90 days, the force configuration can perform its basic core tasks in the principal theatre of the mission area for a limited period of time. It will take a full budget and full deployment of the mission to ensure an effective deployment whereby the mission will have in place an overall command and control capability and a comprehensive logistics system.

D. Developing requirements for strategic deployment stocks

10. A material reserve has been identified as a key feature for ensuring operational readiness for rapid deployment of peacekeeping operations. The components of strategic deployment stocks were determined through an analysis of criticality and time lines for procuring equipment and materials. The components that were deemed critical and were not readily available within the rapid deployment time lines make up the strategic deployment stocks. The force deployment model was used as the foundation for the development of unit modules comprising supply, medical, engineering, communications/electronic data-processing and transportation packages. Scaling and costing of the modules was done in accordance with the Standard Costs Manual and, where applicable, current systems contracts and/or market surveys. The components of the current mission start-up kits will be merged with strategic deployment stocks.

11. Strategic deployment stocks are intended to meet operational requirements for supporting the deployment of new peacekeeping missions. In general, strategic deployment stocks should consist of equipment that is new and has its full service-life expectancy, except for long-life equipment that is considered as good as new after reconditioning.

12. Commodities in the Field Administration and Logistics Division reserve must be assessed for use in strategic deployment stocks and could help defray costs or reduce procurement time. The reserve consists of items that have become available because of changes in an existing mission or the liquidation of a mission. The reserve is not a controlled stock, however, and could include items that have no applicability to the strategic deployment stocks. Hence, there is no guarantee that the reserve can be counted upon as a means to reduce the overall costs of strategic deployment stocks to the full extent of its value.

13. Equipment from the reserve considered suitable for strategic deployment stocks could be distributed to peacekeeping missions in accordance with their approved budgets. Missions that receive commodities from the reserve or from mission start-up stocks would be required to defray the investment cost of strategic deployment stocks by financing the replacement of such equipment.

E. Operation and management of strategic deployment stocks

14. Responsibilities for the implementation and management of the strategic deployment stocks are distributed as follows:

(a) The Assistant Secretary-General for Mission Support will provide strategic guidance on the operation and management of strategic deployment stocks and authorize general policies;

(b) The Director of the Logistics Support Division will direct overall management of strategic deployment stocks, including planning, policy development, procedures and monitoring. The Director will also direct the establishment, replenishment and rotation of strategic deployment stocks;

(c) The Logistics Support Division Service Chiefs will implement the establishment, replenishment and rotation of strategic deployment stocks;

(d) The UNLB Chief Administrative Officer will direct day-to-day management activities and serve as the custodian of strategic deployment stocks. In this respect he will maintain the operational readiness of the stocks; receive, inspect, store and maintain commodities; replace commodities as directed by the Director of the Logistics Support Division; prepare stocks for shipment, as directed by the Director of the Logistics Support Division; maintain inventory records and life data history for commodities; and manage the UNLB strategic deployment stocks maintenance budget allocation.

15. The Secretariat will procure and store materials at UNLB and ensure that strategic deployment stocks are kept current and serviceable. To this end, the Secretariat will rotate certain items — for example, vehicles and electronic data-processing equipment — to other missions so that the items do not become obsolete. Once items have been deployed or rotated, the Secretariat will replenish them by charging the replacement cost to the budget of the mission that receives them.

F. Use of contractual services

16. Rapid deployment depends on the tightening of many of the existing time frames for the procurement and delivery of key equipment. The procurement-related lead time involves acquisition, production, delivery, shipping and other associated tasks. While strategic deployment stocks include many of the key items, the Secretariat will procure other mission-critical items and services, using pre-commitment authority as indicated in section IV below, through the following arrangements:

(a) Under-fee service arrangements (systems contracts) bidding procedures are conducted and vendors agree to deliver the required goods at an agreed price for a determined period. Base on a requisition by individual managers, the Procurement Division issues a purchase order, and a vendor then delivers the goods. With more than 100 systems contracts in place, the Secretariat now has reduced lead time for internal procurement processes. The Secretariat will make further use of systems contracts, which are a key to significantly reducing procurement-related lead time.

(b) Letters of assist are contracts with Governments, usually for military items. They are currently used for standby arrangements for strategic lift and have proved to be very useful. The Secretariat will further explore the use of letters of assist.

17. The possibility of using retainer contracts will continue to be explored in the context of ongoing discussions regarding the establishment of new systems contracts. A cost/benefit assessment will be undertaken to analyse a spectrum of contractor-serviced contracts, from minimum service to turnkey operations, so that sound decisions can be made regarding the possible use of retainer contracts, whereby contractors, at a cost, hold minimum quantities for immediate delivery to peacekeeping missions. While such arrangements would be useful with respect to items requiring long procurement and delivery lead time, such as specialized vehicles, the high cost of retainer fees, which could range up to 30 per cent per annum of the cost of the items, may limit the use of these contracts. The use of retainer contracts is not common in the United Nations system, and there are no specific plans at this time to use them in the context of strategic deployment stocks.

G. The United Nations Logistics Base at Brindisi and strategic deployment stocks

18. UNLB needs to further expand its role in the maintenance and warehousing of strategic deployment stocks. It will require more staff in order to perform additional functions in distribution, maintenance, shipment, rotation, procurement, administrative support, receipt and inspection. The UNLB budget for 2002/2003 includes a summary of the evolving operations of the Base, the requirements for its maintenance and the current operating expenses for strategic deployment stocks. The implementation of the strategic deployment stocks concept will require comprehensive planning of all aspects. An implementation plan for strategic deployment stocks that identifies the major tasks and milestones has been developed. A number of tasks are already under way, such as the preparation of specifications for non-system contract commodities and the initial preparations for drafting statements of work for contractual services to facilitate the receipt, warehousing and support tasks relating to strategic deployment stocks at UNLB.

19. An analysis of space requirements indicates that strategic deployment stocks will require additional covered and open storage space. The Italian Government has generously agreed to ensure that these requirements are met.

II. Budgetary requirements

20. The budgetary requirements for the implementation of the strategic deployment stocks concept include non-recurrent costs amounting to $179,656,300. Other costs, such as those relating to staff and maintenance, estimated at $6 million per year, will be met through the UNLB budget. The cost estimates are shown by main category of expenditure in annex I, and supplementary information is provided in annex II.

III. Staffing requirements

21. A total of 47 additional posts (13 international and 34 local) are required for the implementation of the strategic deployment stocks concept. Provision for these posts, as well as for a new post for the Chief Administrative Officer, at the D-1 level, is being made in the 2002-2003 UNLB budget. Detailed information on staffing requirements is contained in the report of the Secretary-General on the UNLB budget for 2002-2003 (A/56/871).

IV. Financing modalities

A. Financing of the strategic deployment stocks

22. It is proposed that the cost of establishing the strategic deployment stocks be charged to the UNLB budget on a one-time basis.

23. It is proposed that the fund balances available in several closed missions, for which final performance reports are being submitted to the General Assembly at its

current session, be utilized to offset the cost of strategic deployment stocks. The amounts available for transfer are shown in the table below.

Source of funds for the strategic deployment stocks	*Amount*
United Nations Peace Forces	125 644 300
UNTAES/Civilian Police Support Group	35 799 000
UNPREDEP	18 213 000
Total	**179 656 300**

B. Replenishment of the strategic deployment stocks

24. The initial procurement of the strategic deployment stocks will represent a one-time cost. Suitable items will be moved from the FALD reserve to the strategic deployment stocks. The strategic deployment stocks will supersede the two existing mission start-up kits.

25. Every release of equipment from strategic deployment stocks will trigger an immediate replenishment action, which will be initiated by the Director of the Logistics Support Division of the Department of Peacekeeping Operations and coordinated by the strategic deployment stocks desk officer. In order to keep the stockpile technologically current, replenishment items may occasionally constitute more advanced models and supplant items that have become functionally obsolete, meaning that the composition of the strategic deployment stocks will be updated continuously.

26. The budgets of receiving missions will provide for the purchase of replacement commodities, as well as the cost of shipment from the provider to UNLB.

27. The costs associated with the preparations for storage and shipment of strategic deployment stocks commodities, as part of replacement or rotation actions, will be met through the UNLB budget. Operating and maintenance costs, including costs for items that have to be replaced because of expiration or obsolescence of stocks, other than shipment and preparation costs, will also be met through the UNLB budget.

C. Pre-mandate commitment authority

28. Lengthy procurement lead time has been identified as an obstacle to rapid deployment, particularly for specialized equipment and large-volume orders that entail dedicated production schedules for manufacturers. Financial authority is required for the Secretary-General to commit funds for procurement purposes before the adoption of a mission mandate, in order to ensure readiness for rapid deployment.

29. In its resolution 49/233 A, the General Assembly authorized the Secretary-General to enter into commitments of up to $50 million per decision of the Security Council relating to the start-up or expansion phase of a peacekeeping operation, with the prior concurrence of the Advisory Committee on Administrative and Budgetary Questions. The Panel on United Nations Peace Operations, however,

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recommended that the Secretary-General be given authority to draw up to $50 million from the Peacekeeping Reserve Fund when it became clear that an operation was likely to be established, with the approval of the Advisory Committee on Administrative and Budgetary Questions, but prior to the adoption of a Security Council resolution (see A/55/305-S/2000/809, annex III, para. 13 (c)). In the annex to its resolution 1327 (2000), the Security Council encouraged the Secretary-General, during the planning and preparation of a peacekeeping operation, to take all possible measures at his disposal to facilitate rapid deployment, and agreed to assist the Secretary-General, wherever appropriate, with specific planning mandates requesting him to take the necessary administrative steps to prepare the rapid deployment of a mission. The Organization is taking positive action to achieve rapid deployment, and pre-mandate financial commitment authority is essential in order to meet this goal. The Secretary-General made a further proposal in this regard in paragraphs 117-119 of document A/55/977.

30. It is therefore proposed that pre-mandate commitment authority up to the amount of $50 million be granted to the Secretary-General when the establishment of a new peacekeeping mission is anticipated. All commitments authorized under this arrangement will be funded from the Peacekeeping Reserve Fund.

31. The cumulative total of outstanding commitment authority for all peacekeeping missions, in respect of both pre-mandate commitment authority and commitment authority granted under the provisions of section IV of General Assembly resolution 49/233 A, will not at any one time exceed $150 million. However, appropriate by the General Assembly of any outstanding commitments will automatically restore the balance of the limit of $150 million to the extent of the amount appropriated.

32. An initial budget for the six-month financial cycle for peacekeeping operations, in accordance with section I of General Assembly resolution 49/233 A, will be submitted within 30 days of the adoption of a decision by the Security Council.

33. A pre-mandate commitment authority will align the availability of financial resources with political developments so that response can be rapid and the initial key support structures of a new mission can be established. Figure 2 below shows the proposed 50-day time line for obtaining funding prior to the adoption of a resolution, designed to facilitate procurement action and the mobilization of personnel at the initial stage of a mission. The Secretariat will take complementary measures to accelerate internal processes, such as expediting spending authorization, simplifying procurement procedures and expanding delegation of authority to the field.

34. Experience of the past 10 years indicates that new peacekeeping operations can often be anticipated prior to the adoption of a full mandate, which often hinges on late-developing political action in the host country. For planning purposes, "D-day" is designated as the estimated date of adoption of a new Security Council resolution. Planning for rapid deployment will normally commence about 60 days before D-day, or D – 60 days.

35. To initiate rapid deployment planning, the Secretary-General will be engaged in extensive consultation with the Security Council. Following these consultations, the Secretary-General will inform the President of the Security Council in writing of

his intention to plan and prepare for a new mission, in keeping with Security Council resolution 1327 (2000). Once the Secretary-General has received from the President of the Security Council a letter expressing concurrence with his intention, the following steps will be taken (see figure 2) to initiate rapid deployment:

(a) D – 60 days: a planning team will be established. A warning order will be issued to the Department of Peacekeeping Operations regarding anticipated preparatory steps for a new mission.

(b) D – 50 days: the concurrence of the Advisory Committee on Administrative and Budgetary Questions will be sought for pre-mandate commitment authority of up to $50 million to meet the costs of the advance team, the procurement of supplies and service with long lead times and the recruitment of personnel for the establishment of the mission headquarters.

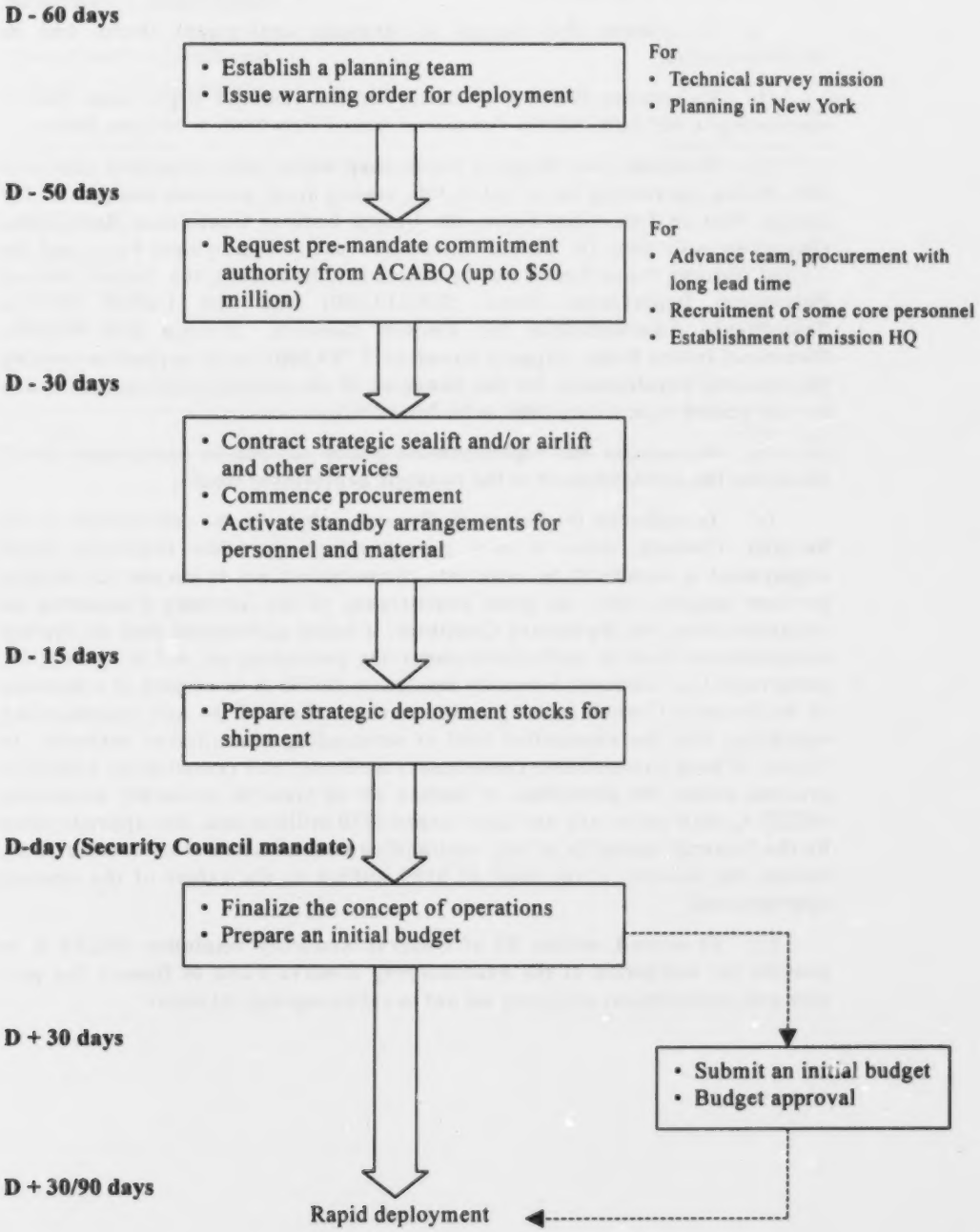
(c) D – 30 days: contract arrangements will be made for strategic sealift and/or airlift and other services. Procurement action will be initiated for delivery of goods and provision of services as from D + 60. Standby arrangements for personnel and material will be activated.

(d) D – 15 days: shipment of items from strategic deployment stocks will be prepared.

(e) D-day (Security Council mandate): the concept of operations will be finalized.

(f) D + 30/90 days: deployment will take place to provide an initial minimum operational capability. An initial budget for the first six-month period will be submitted to the General Assembly within 30 days of the adoption of a Security Council resolution.

Figure 2
Proposed mission sequence


D - 60 days
• Establish a planning team
• Issue warning order for deployment
For
• Technical survey mission
• Planning in New York
D - 50 days
• Request pre-mandate commitment authority from ACABQ (up to $50 million)
For
• Advance team, procurement with long lead time
• Recruitment of some core personnel
• Establishment of mission HQ
D - 30 days
• Contract strategic sealift and/or airlift and other services
• Commence procurement
• Activate standby arrangements for personnel and material
D - 15 days
• Prepare strategic deployment stocks for shipment
D-day (Security Council mandate)
• Finalize the concept of operations
• Prepare an initial budget
D + 30 days
• Submit an initial budget
• Budget approval
D + 30/90 days
Rapid deployment

V. Actions to be taken by the General Assembly

36. The actions to be taken by the General Assembly are as follows:

(a) To endorse the concept of strategic deployment stocks and its implementation;

(b) To approve the cost estimates for the strategic deployment stocks, amounting to $179,656,300 for the period from 1 July 2002 to 30 June 2003;

(c) To decide that Member States shall waive their respective shares in the credits, amounting to $179,656,300, arising from previous budgets of the United Nations Protection Force, the United Nations Confidence Restoration Operation in Croatia, the United Nations Preventive Deployment Force and the United Nations Peace Forces headquarters ($125,644,300), the United Nations Preventive Deployment Force ($18,213,000) and the United Nations Transitional Administration for Eastern Slavonia, Baranja and Western Sirmium/Civilian Police Support Group ($35,799,000), to be applied to meeting the resource requirements for the financing of the strategic deployment stocks for the period from 1 July 2002 to 30 June 2003;

(d) To endorse the replenishment policy set out in paragraphs 24-27 above for the replenishment of the strategic deployment stocks;

(e) To authorize the Secretary-General, subject to the concurrence of the Security Council, when a new peacekeeping operation requiring rapid deployment is imminent, to enter into commitments not to exceed $50 million per new mission, with the prior concurrence of the Advisory Committee on Administrative and Budgetary Questions, it being understood that no further commitments shall be authorized under the provisions set out in section IV, paragraph 1, of General Assembly resolution 49/233 A in respect of a decision of the Security Council relating to the start-up phase of the new peacekeeping operation; that the cumulative total of outstanding commitment authority, in respect of both pre-mandate commitment authority and commitment authority granted under the provisions of section IV of General Assembly resolution 49/233 A, shall not at any one time exceed $150 million; and that appropriation by the General Assembly of any outstanding commitments shall automatically restore the balance of the limit of $150 million to the extent of the amount appropriated;

(f) To amend section XI of General Assembly resolution 49/233 A to provide for utilization of the Peacekeeping Reserve Fund to finance the pre-mandate commitment authority set out in subparagraph (e) above.

Annex I

Cost estimates for the period 1 July 2002 to 30 June 2003: summary statement

Operational requirements

(Thousands of United States dollars)

Category of expenditure	*Proposed cost estimates*
Premises/accommodation	40 355.5
Transport operations	54 193.2
Air operations	1 458.7
Communications	43 110.3
Other equipment	36 681.7
Supplies and services	3 648.1
Public information programmes	208.8
Total	**179 656.3**

Annex II

Supplementary information

I. Overall plan for strategic deployment stocks

1. A modular approach was used in identifying requirements for strategic deployment stocks. A module is a composite package containing equipment and supplies in appropriate quantities for supporting an organizational structure, enabling each component to achieve effective deployment. The number of modules needed to support each of the various elements of a mission will be dictated by the function, role and strength of each element. Support modules will exist for functional areas such as headquarters, administrative support, ports of debarkation, medical services, logistics and engineering, as well as for formed military units, military observers and civilian police. The following module types have been defined:

(a) *Mission headquarters stocks*. One mission headquarters start-up module will be ready for deployment by airlift at all times. Dedicated modules for airport and seaport functions and transit camps supplement the headquarters stocks.

(b) *Sector headquarters stocks*. Three sector headquarters start-up modules will be required for a complex mission.

(c) *Military components stocks*. Three modules for infantry battalions, three for logistics units, two for level II medical facilities, one for a headquarters support unit, one for a military police unit, one for an engineering unit, one for a mine-clearance unit, one for an aviation unit and one for a reserve unit will be required. The logistics and engineering modules include second-and third-line transport and engineering equipment.

(d) *Military observer stocks*. Two modules are required, each to support 100 personnel.

(e) *Civilian police stocks*. Two modules are required, each to support 100 personnel.

2. To provide a rapid deployment capability for two missions — one complex and one traditional — 28 strategic deployment stocks modules of varying size are proposed. Twenty-five modules would be required to support a complex mission, and 18 to support a traditional mission.

II. Planning parameters

3. It is assumed that a mission area would have a bare-base infrastructure; however, access to a major airfield and a seaport would be available.

4. The strength of mission and sector headquarters has been determined on the basis of existing missions, as follows:

Category of personnel	*Traditional mission*	*Complex mission*
Mission headquarters	600	1 000
Special Representative's office and substantive staff	75	150
Force headquarters military staff	75	100
Integrated support services — military staff	50	100
Integrated support services — administration	100	150
Local staff	300	500
Sector headquarters (3)	-	300
Within each sector headquarters	-	100
Military staff	-	50
Integrated support services — administration	-	25
Local staff	-	25

Military components

5. Each type of military component will be allocated modules as follows:

Military component	*Personnel*	*Modules*
Headquarters support unit	150	1
Military police unit	50	1
Infantry battalion	900	3
Multi-role engineering unit	150	1
Mine-clearance unit	150	1
Reserve company	150	1
Composite logistics unit	150	3
Level II medical unit	50	2
Aviation unit	75	1

III. Common planning parameters for commodities

6. Common planning parameters, used for all commodities, include the following:

(a) Ten team sites for 100 military observers;

(b) Five team/squad sites for 100 civilian police;

(c) Provision for transportation/shipment cost to the United Nations Logistics Base at Brindisi (UNLB);

(d) Spare-part scales for items with associated spare-part packages, established on the basis of existing guidelines and past experience.

IV. Specific parameters for individual categories of commodities

Engineering

7. The specific engineering requirements are as follows:

(a) Accommodation for mission headquarters, logistics base or area, transit camp(s), sector headquarters and team sites:

(i) Sixty per cent prefabricated hardwall (containerized) and softwall;

(ii) Forty per cent use of existing hardwall infrastructure;

(iii) Warehouse and workshop halls (prefabricated);

(iv) Hardwall kitchens and dining areas (containerized).

(b) Accommodation for military contingents (shared between United Nations personnel and personnel of troop-contributing countries):

(i) Semi-rigid framed structure (tentage);

(ii) Warehouse and workshop halls (prefabricated);

(iii) Hardwall kitchens and dining areas.

(c) Engineering enabling packages containing minimum quantities of basic materials, tools, portable toilets, generators and field defence stores for all troops;

(d) Generators and electrical supplies for mission headquarters, logistics base or area, sector headquarters, team sites and contingent camps (shared between United Nations personnel and personnel of troop-contributing countries); 50 per cent back-up capacity;

(e) Field defence stores for 50 per cent of contingents premises and all headquarters premises;

(f) Capacity to upgrade, repair and maintain one existing airfield suitable for use by heavy cargo aeroplanes (e.g., AN-124, C-5A) and up to two other existing airfields for use by medium cargo aeroplanes (e.g., C-130, C-160);

(g) Bridging sets (modular bridges);

(h) Water purification and bottling plants;

(i) Geographical information start-up package.

Common supplies

8. Contingents will be required to deploy with a 30-day supply of combat rations and a 7-day supply of bottled water.

9. A 30-day stock of emergency rations for 50 per cent of the overall strength of a traditional mission, i.e., 2,750 personnel, is required (local staff not included).

10. While most fuel supplies will have to be arranged through systems contracts, a 30-day storage capacity for vehicle and generator fuel is required for the headquarters modules. A 30-day supply of lubricants must be stocked.

Communications and information technology

11. The United Nations will be responsible for providing all means of communication down to the battalion (or independent unit) headquarters level, including for strategic communications from mission headquarters to United Nations Headquarters and UNLB. It is planned to have communications equipment in stock to establish links initially to 14 battalions or independent units.

12. Electronic data-processing services, systems and equipment for mission, force and sector headquarters will be a United Nations responsibility.

13. Contingents are assumed to be 100 per cent self-sustaining with respect to internal tactical communications.

Transport

14. All specialized vehicles — airfield/port material-handling equipment, bowsers, forklifts, cranes, firefighting trucks, ambulances, etc. — are part of the headquarters start-up modules.

15. Vehicles to support military functions will be provided only for military commanders at the headquarters level, military observers and specialized units, such as headquarters support units, logistics/transport units and engineering units.

16. Military observers are assumed to require some protected patrol vehicles: 25 per cent of the military observers' vehicles should be of the armoured mine-protected type.

17. Civilian police are assumed to require specialized patrol vehicles: 100 per cent of civilian police vehicles should be specially equipped.

V. Cost estimates by item of expenditure

Premises/accommodation

Estimates: $40,355,500

18. *Twenty-foot prefab containerized accommodation.* Based on the assumption that 40 per cent of the required accommodation space will come from existing facilities in the host country, the requirement of 828 office containers has been calculated using a ratio of two staff members per unit, as follows:

(a) Mission headquarters and force headquarters (traditional mission) with an initial strength of 375 staff: 188 units;

(b) Mission headquarters and force headquarters (complex mission) with an initial strength of 600 staff: 300 units;

(c) Sector headquarters (complex mission) with an initial strength of 75 staff: 38 units for each sector, i.e., 114 units for 3 sectors;

(d) Transit camp: 4 units;

(e) Military units that are 50 per cent self-sustained will in general require 8 office containers per 150 troops. Exceptions are the aviation unit and the level II

medical facility, with requirements for 48 units for living and offices and 21 units for offices, respectively. *Total requirement: 222 units.*

19. *Twenty-foot ablution unit.* Fifty-three units are required, based on a standard scale of 30 persons per unit, as follows:

(a) Mission headquarters and force headquarters (traditional mission) for 600 staff: 10 units;

(b) Mission headquarters and force headquarters (complex mission) for 1,000 staff: 13 units;

(c) Two sector headquarters for 100 staff each: 6 units;

(d) Two hundred civilian police officers: 10 units;

(e) One aviation unit and two medical units: 14 units.

20. *Hangar, type A (45x35 metres).* Three units are required to support aircraft maintenance: one for a traditional mission and two for a complex mission.

21. *Hangar, type B (30x30 metres).* Seven units are required for aircraft maintenance: one for a traditional mission, five for a complex mission (this also covers the requirements of three regional sectors) and one for the aviation unit.

22. *Warehouse, type C (15x36 metres).* Eighty-two units are required for warehouse and workshop facilities as follows: 10 for mission headquarters (warehouses at logistics base, workshops for engineering, transport, electronic data processing and communications), 20 for complex mission headquarters, 6 for three sector headquarters, 40 for military units, including aviation and medical units, and 6 for a transit camp.

23. *Warehouse, type D (20x42 metres).* Seven units are required for warehousing mission assets and workshop facilities — two for a traditional mission and five for a complex mission.

24. *Kitchen and dining area set.* Provision is made for 25 units of containerized kitchen and dining area sets of various capacities, allocated as follows:

(a) Six 50-person units: one for a military police unit, one for an aviation unit, two each for two medical units;

(b) Thirteen 100-person units: two for traditional mission and force headquarters, three for sector headquarters, one for a headquarters support unit, one for a mine-clearance unit, one for an engineering unit, one for a reserve unit, three for logistics units, one for a transit camp;

(c) Two 250-person units: both for complex mission headquarters;

(d) Four 500-person units: three for infantry battalions, one for a transit camp.

Transport

Estimate: $54,193,200

25. The construction time for vehicles currently under contract is between 90 and 270 days for a single unit. An order for multiple units has a significant impact on

these figures, which is determined by the capacity of the manufacturer. Ordering, shipping, configuring and issuing will all add to the time needed to provide operational vehicles to a mission. Therefore, it has been assumed that all vehicles will be purchased and pre-positioned as part of strategic deployment stocks.

26. *Light utility vehicles*. These vehicles form the bulk of the proposed fleet and are the main form of transport in a mission.

(a) Four-by-four general purpose vehicles are allocated on the basis of standard ratios applied to the planned staffing levels. Four-by-four general purpose police vehicles, also allocated on the basis of standard ratios are the same as the four-by-four general purpose vehicles, with the addition of light bars, sirens, searchlights, police markings and other role-specific items;

(b) A limited number of four-by-four VIP and VIP armoured vehicles are required to provide an appropriate level of protected transport for Special Representatives of the Secretary-General and Force Commanders;

(c) Double-cabin pickups are allocated on the basis of historical mission information, contract data and military planning guidance. They are generally used by mission technical staff to move tools, equipment and personnel;

(d) Armoured mine-hardened vehicles are projected to constitute 25 per cent of the fleet for military observers. They are designed to allow the occupants to survive a single anti-tank mine under one wheel and are protected against small-arms fire.

27. *Command vehicles*. Wheeled, armoured personnel carriers (unarmed) are converted to provide a tactical mobile command post for force headquarters staff. They will be provided for the Force Commander, Deputy Force Commander and each Sector Commander. Basic communications will include United Nations-provided high frequency, VHF and UHF equipment. Additional radio equipment may be added depending on the command structure and means of subordinate military units.

28. *Passenger-carrying vehicles*. These vehicles will provide the mission infrastructure for the various passenger movement tasks as follows:

(a) Light buses (minibuses) are scaled at a standard ratio of one per eight local staff members at main and sector headquarters. Larger missions operate a scheduled service between main mission locations;

(b) Light delivery buses or panel vans are provided in small numbers to mission and sector headquarters. These vehicles allow movement of low-volume items such as computers, spare parts, general stores and mail;

(c) Light buses will also serve as prisoner vans. Recent experience in the United Nations Interim Administration Mission in Kosovo and the United Nations Transitional Administration in East Timor requires that a purpose-built prisoner transport capability be in place;

(d) Medium-sized buses are a workhorse of mission transport infrastructure, moving passengers and baggage between mission headquarters, airfields and sectors, for troop rotations and mission travel. Scaling will allow daily two-way routes to be run between main headquarters and sector headquarters and one-way routes between sector headquarters, and will provide transport for force headquarters military staff;

(e) Heavy buses will be the main vehicles for troop rotations and deployments.

29. *Cargo vehicles*. A modular approach is used, whereby various interchangeable, load-carrying bodies can be used on a single vehicle. High-mobility container-carrying vehicles and trailers are the primary third-line means of direct movement to unit locations, depending on route capacities. Given the uncertainties of roads, climate, infrastructure and terrain that may be encountered in a new mission, this modular approach is extended to vehicles carrying lighter payloads: in areas where a break-bulk capability is provided at the second line, stores are moved by smaller vehicles, capable of carrying payloads of four to six tons, that have interchangeable load bodies. This solution provides an enhanced operational capability whereby fewer vehicles can perform the necessary range of tasks.

30. The table below reflects the ratios applied to three categories of vehicle.

Category	*Staffing*	*Ratio*	*4x4 general purpose*	*Double-cabin pickup*	*Minibus*
Traditional mission headquarters					
Substantive international staff	75	2.5	30	4	
Force headquarters military staff	75	4.5	17	3	
Integrated support services military staff	50	2.5	20	3	
Integrated support services international staff	100	2.5	40	6	
Local staff	300	8			38
Subtotal	**600**		**107**	**16**	**38**
Complex mission headquarters					
Substantive international staff	150	2.5	60	9	
Force headquarters military staff	100	4.5	22	3	
Integrated support services military staff	100	2.5	40	6	
Integrated support services international staff	150	2.5	60	9	
Local staff	500	8			63
Subtotal	**1 000**		**182**	**27**	**63**
Sector headquarters					
Sector headquarters military staff	50	4.5	11	2	
Integrated support services international staff	25	2.5	10	1	
Local staff	25	8			3
Subtotal	**100**		**21**	**3**	**3**

31. *Bulk fuel.* The bulk fuel transportation capacity for a complex mission has been determined on the basis of the following assumptions:

(a) Approximately 2,700 vehicles (1,000 United Nations-owned and 1,700 contingent-owned) operated in a complex mission area, at the standard ratio of 20 litres per day, will require 54,000 litres of fuel per day. In addition, 6,000 litres per day will be needed for 200 generators, each consuming 30 litres per day. Therefore, 60,000 litres of ground fuel constitute one day of supply;

(b) One day of supply should be held at the first line, in the operational vehicles and generators, assuming that the best practice of keeping vehicle fuel tanks filled is adopted;

(c) One day of supply should be held at the second line, in the modular palletized load system (PLS) fuel tanks. There is a 15,000-litre excess capacity to achieve rotation of full and empty PLS fuel tanks;

(d) Five days of supply should be held on wheels at the third line, in fuel tank trucks and trailers, with one 15,000-litre tanker in reserve to cover for breakdowns and planned maintenance;

(e) Seven days of supply should be held in fuel bladders at the third or fourth line to form the emergency reserve, with a spare capacity of 22,000 litres for ad hoc tasks;

(f) The total of 14 days of supply (840,000 litres) is an appropriate holding for the deployment of a complex mission;

(g) Each of the fuel vehicles and modular PLS tanks can perform bulk onloading and offloading and provide a stand-alone vehicle refuelling capability.

32. *Aviation fuel.* Aviation fuel transportation capacity is 90,000 litres. Some of the modular PLS tanks can be used to provide forward fuel points for helicopter aviation units.

33. *Bulk water.* The engineering concept provides for 1,080 cubic metres of water to be stored. Assuming a worst-case scenario in which no local sources are available, the mission transport requirements are a third-line lift capacity of 315 cubic metres and a second-line lift capacity of 75 cubic metres in mobile PLS containers.

34. *Maintenance.* The repair and maintenance concept foresees the establishment of two dual-purpose second- or third-line workshops, one for light vehicles and one for heavy vehicles, in the rear of the mission area. In the sectors, second-line workshops will be established to complete routine maintenance work on vehicles in their area. Any sector vehicles requiring more extensive repairs will be sent to the third-line workshops.

35. *Workshop tools and equipment.* The Standard Cost Manual provides for up to 7.5 per cent of vehicle purchase costs to be spent on tools and equipment. This figure provides for everything from basic mechanic's tools to vehicle lifts, engine hoists, tire-changing bays, compressors and air conditioner recharging units, and will allow the rapid establishment of fully functional workshops. For the purposes of the strategic deployment stocks, 5 per cent is used to calculate costs. Mobile maintenance trucks provide an immediate maintenance capability. In the longer term these vehicles provide field maintenance for static equipment, such as generators

and refrigerator units, and field repairs to vehicles as necessary. They are fully equipped to provide a second-line maintenance and limited third-line repair capability.

36. *Spare parts*. Current planning for the introduction of new types of vehicles to mission areas allows for up to 10 per cent of the vehicle acquisition cost to be spent on spare parts for scheduled maintenance, non-accident repairs and a limited accident-repair capability. Economies of scale with strategic deployment stocks are such that 5 per cent rather than 10 per cent has been used for budget planning, but this means that the parts resupply line will have to be established quickly once the mission is set up. There are particular challenges involved in parts management, with more than 10,000 individual parts for a basic four-by-four vehicle, 20,000 for trucks and more than 30,000 for many of the more sophisticated trucks, such as heavy equipment, airport function and forklift types. The investment of more than $2.1 million to provide parts support for 35 different vehicle types requires that initial detailed parts lists be developed to meet likely needs, that parts be deployed efficiently and that an effective inventory management tool be provided.

37. *Recovery*. The recovery plan envisages that the United Nations will be responsible for second- and third-line recovery on all the main and secondary supply routes. The bulk of mission accidents traditionally involves vehicle types. Recovery vehicles are therefore scaled to provide the following response capabilities:

(a) For light vehicles, eight-ton recovery trucks will be positioned at each end of major and secondary routes to ensure a maximum two-hour response time for two incidents on any route at the same time;

(b) For heavy vehicles, heavy recovery trucks will be positioned to provide a maximum four-hour response time on any route;

(c) Vehicle-carrier flatbed PLS trucks are provided to allow movement of non-roadworthy light vehicles from sectors to the main vehicle workshops;

(d) Tractor truck and low-bed trailer combinations are provided to facilitate the recovery of heavy vehicles.

38. *Camp services vehicles*. The following vehicle types are needed in connection with camp servicing:

(a) Aerial working trucks, to perform high-reach tasks, including erecting warehousing, running cables, fastening radio masts and installing satellite dishes;

(b) Fire trucks, scaled at two for mission headquarters locations and one per sector, to provide a rapid response capability for domestic mission incidents;

(c) Sewage trucks, for the fortnightly removal of waste from the 110 septic tanks envisaged in the engineering plan;

(d) Fridge and dry vans, to allow the establishment of a weekly delivery schedule in a worst-case scenario requiring the movement of rations from a central warehouse depot to company-level locations;

(e) Modular camp service systems, based on four-ton PLS vehicles will provide a number of camp services, such as:

(i) Regular removal of bulk rubbish containers at all locations, exchanging empty containers for full ones;

(ii) Refrigeration, to allow the delivery of chilled and frozen food on a rotation basis to support the static unit;

(iii) The movement and delivery of a range of heavy or bulky items with an integrated crane arm.

39. *Airport operations.* Vehicle scaling will allow one cargo and one passenger aircraft to be handled concurrently. Functions include onloading and offloading, refuelling, aircraft marshalling and positioning, the provision of ground power and emergency response, using a high-mobility crash tender, that extends beyond the airport perimeter. Airfield communications are provided by mobile control towers; a limited airfield maintenance capability is based on the use of grass cutters and runway sweepers. Contracted aviation companies based in the mission area are scaled to be supported with light vehicles to help meet their ground transportation needs.

40. *Port vehicles.* It is assumed that strategic deployment stocks, contingent vehicles and containers arriving at the seaport of debarkation will be on board ro-ro type and/or self-discharging vessels. The concept of port operations is therefore based primarily on container operations. Thus, two large container forklifts and one small one are provided to transfer containers from the quayside to storage areas and to load the container vehicles from the logistic units. One 25-ton crane can be assigned from the engineer unit if the capabilities of the port infrastructure so allow. A low-bed tractor/trailer combination is provided to allow movement of non-functioning vehicles and tracked or heavy plant equipment. One light truck and two utility vehicles are provided for administrative and break-bulk tasks.

41. *Mechanical handling equipment.* Based on approximate levels in other missions, the proposed mix of types will allow the full range of handling tasks to be accomplished at every stage:

(a) Three-ton forklifts and electric forklifts to perform warehouse operations;

(b) Three-ton teleporter vehicles to provide a container-stuffing capability based on their extended reach;

(c) Larger-capacity eight-ton forklifts and rough terrain forklifts to handle larger break-bulk and palletized loads, including engineering stores, ammunition, bottled water and general stores;

(d) Low-mast fifteen-ton forklifts for airfield operations in which their reduced mast height and full free fork movement allow them to work safely behind cargo aircraft such as the C-130 and Il-76;

(e) Fifteen-ton rough terrain forklifts for high-mobility container handling in forward areas and greenfield container-marshalling areas;

(f) Twenty-eight-ton forklifts for primary handling of containers arriving in the mission area.

42. *Engineering vehicles.* These are intended for a number of discrete tasks in support of mission effectiveness:

(a) Road infrastructure repair route maintenance and airfield maintenance;

(b) Vertical construction of tented camps, prefabricated camps and modular softwall buildings, and rehabilitation of existing buildings;

(c) Construction of field defences;

(d) Water-provisioning tasks;

(e) Provision of field power sources.

Communications

Estimate: $43,110,300

43. The allocation of communications equipment is based on standard ratios applied to the planned staffing levels.

44. *UHF and VHF equipment.* The following equipment is envisaged:

(a) VHF handheld: portable radios (handie talkie — general) with a range of 5-10 kilometres are provided to all peacekeeping personnel in accordance with established standard ratios;

(b) VHF base stations: stationary radios installed in fixed locations, usually in offices, where an antenna is mounted on the roof of a building or on a tower to maximize signal propagation (coverage: 20-30 kilometres). The number of units and sub-units at a particular location determines the number of base stations required;

(c) VHF mobile sets: mounted in vehicles for mobile communications (coverage: 15-25 kilometres). The proposed quantity of 1,284 sets is based on the number of vehicles to be equipped with VHF radios;

(d) VHF repeaters (secure and non-secure): used to extend the coverage of radio networks by receiving signals over one frequency and retransmitting them over a different frequency. Repeaters are usually located on centrally located mountains, hillsides or tall buildings and provide the same coverage as base stations;

(e) Digital microwave links: for communication links to regional sub-headquarters and other communication nodes within a mission area. Microwave transmitters use significantly higher frequencies than VHF/UHF systems and thus are able to carry greater amounts of information. They are normally configured as point-to-point terrestrial links. The distance between transmitters is determined by the need for line-of-sight transmission. The latest models also incorporate high-speed data local area network (LAN)/wide area network (WAN) connections;

(f) Linked digital trunking systems: sophisticated radio networks that perform essentially the same function as VHF networks. The trunking system employs a more complex transmission processing protocol controlled by computer. It monitors and identifies the transmissions of each radio operating within a given network and performs multiplexing of radio transmissions and assignment of frequencies. The system thus allows many users to use the same repeater simultaneously without interference, while also providing protection against jamming and interference.

45. *High-frequency equipment.* High-frequency radio offers very wide coverage and performs most efficiently over long distances (more than 50 kilometres). Its signal quality and reliability, however, are far from equalling those provided by VHF and UHF, because of its lower frequencies. High-frequency equipment is to be used between regional headquarters within a mission as back-up to satellite circuits, and by military observers deployed in remote areas where no other means of

communications is available. High-frequency equipment is sensitive to environmental conditions and requires periodic calibration. Vehicles for overland travel will be equipped with mobile transceivers that include a global positioning system function for remote vehicle tracking.

46. *Satellite equipment.* The following equipment is included:

(a) Earth stations provide a mission headquarters rear link to United Nations Headquarters via the global United Nations satellite network;

(b) Very small aperture (VSAT) "C" band stations. VSAT refers to antenna size, which in turn determines the number of telephone/fax lines that can be connected to the network. VSAT provides connectivity for regional headquarters and, in vans, together with the mobile deployable telecommunications system (MDTS), mobile connectivity to the global United Nations satellite network;

(c) INMARSAT terminals (mini "M", mobile mini "M" and "M4") provide independent voice, fax and data communications for all sub-headquarters locations.

47. *Telephone equipment.* Peacekeeping operations may be deployed in countries where the national infrastructure has been severely damaged, if not destroyed. This often requires the United Nations to establish the mission communications network from scratch, including landline telephone services. Telephone services and equipment include the following:

(a) Private access branch exchange (PABX) is the brain behind any telephone network. It is the gateway between the mission headquarters office telephone system and provides the satellite link back to New York Headquarters and access to local postal telephone and telegraph lines. PABX systems are always installed in mission headquarters and usually throughout sector or regional offices in the field to provide the necessary number of telephone/fax circuits. Three exchange types are proposed — large, medium and small — to provide telephone services to mission installations, in accordance with their size and function and the number of lines required;

(b) GSM mobile telephones with worldwide access are provided for substantive staff and key mission personnel;

(c) Rural telephone links are used to extend telephone lines over radio links in areas that are difficult to access with landlines;

(d) Secure (encrypted) telephone and fax services are provided to the Special Representative of the Secretary-General or key mission personnel for sensitive communications with United Nations Headquarters. This may also be required for communications between key organizations within a mission to ensure the privacy of sensitive communications in critical situations.

48. *Radio broadcasting equipment.* Radio broadcasting equipment is provided for the transmission of information to the public. Broadcasting equipment will be located at a mission headquarters. One set of equipment will be kept on standby at these locations as a back-up.

49. *Workshop, test and other equipment.* The following equipment is included:

(a) A rapidly deployable telecommunications system (RDTS) will be set up at a mission headquarters location to provide access to the United Nations

worldwide communications network until permanent installations can be completed, typically for the first 90 days;

(b) An MDTS is capable of performing the same functions as an RDTS in a highly mobile vehicle-mounted system. This type of communications system will be employed at forward and/or remote mission locations such as regional headquarters, logistic bases, airports and seaports during initial deployment phases, typically for the first 15 days;

(c) Solar panel kits are used to provide communications equipment with direct current power in locations where other sources are not available or reliable. This permits, for example, the deployment of remote or unattended repeater sites in support of radio or trunking systems;

(d) The CarLog system is proposed as a standard feature for all vehicles driven on public roads. The system has features that allow only authorized users to operate a certain vehicle, and that sound alerts when speed is excessive or scheduled maintenance becomes due. It also has features for recording fuel consumption, trip profiles and information about the last 3 hours of operation.

Other equipment

Estimate: $36,681,700

50. Standard ratio scales have been applied to determine quantities of office furniture, accommodation equipment and office equipment (e.g., copiers, safes and shredders).

51. *Photocopiers.* Applying the standard ratio scales for large headquarters, major base locations, sections/divisions/units at headquarters, regional headquarters and team sites, the following quantities of photocopiers have been determined (quantities for entities not listed have been determined from empirical data and by comparison):

Copier type	*Traditional mission headquarters*	*Complex mission headquarters*	*Sector headquarters (3)*	*Civilian police (200)*	*United Nations military observers (200)*	*Military units (14)*	*Total*
Mid-volume	30	60	24	6	6	4	130
High volume	3	6	3	-	-	-	12
Combo unit	25	50	15	24	14	14	142
Total	**58**	**116**	**42**	**30**	**20**	**18**	**284**

52. *Data-processing equipment.* The allocation of electronic data-processing equipment is based on the application of standard ratios for desktop computers, laptops, printers and file servers to the planned staffing levels.

(a) Desktop computers with monitors are used for basic computer operations in the mission area, including word-processing, spreadsheet production and database management;

(b) Portable (notebook) computers are also used for basic computer operations in the mission area, including word-processing, spreadsheet production and database management;

(c) LAN file/application servers and software: the server stores data for network users and provides access to the data and/or applications through the network media under the control of the network operating system. The technical specifications for the file servers depend on the number of users and the selected topology of the LAN. A file server consists of a CPU, a monitor, a keyboard, network interface cards, a tape streamer (data back-up) and the network operating system (Novell Netware, MS Windows NT, Linux or SCO UNIX);

(d) Uninterrupted power supply (UPS) is based on battery-type power sources, which provide protection against power failures and potentially destructive fluctuations. In case of an interruption in the power supply, 1,000VA and 3,000VA models, for personal computers and servers respectively, provide continuous electrical power until back-up power becomes available or the computer is shut down. Both types of UPS can also be used in conjunction with voltage regulators when required.

53. *Software*. Standard United Nations application software licences are provided for 100 per cent of the proposed computers.

54. *Generators*. The provision of 241 generator sets of various capacities is required to generate electrical power for all mission elements, including troops (United Nations standard ratio = 1.5 kVA per person). In order to maintain continuous power generation, a 50 per cent back-up capacity is required. Therefore, a pair of generator sets should be allocated at each location and/or for each purpose. Smaller generators of various capacities are required for remote location deployments (e.g., for military observers) and dedicated power consumers (satellite farms, communications centres, etc.). The breakdown of generator requirements is as follows:

Generator set	*Traditional mission headquarters*	*Complex mission headquarters*	*Sector headquarters*	*United Nations military observers*	*Civilian police*	*Military units*	*Transit*	*Total*
2.5 kVA				10	10	8		28
5-7 kVA	5	5	15			15		40
15 kVA				20				20
20 kVA						35		35
36 kVA			12		10	10		32
50 kVA	2	2	6			9		19
75 kVA	2	2	3			7		14
100 kVA	2		6			2		10
160 kVA		2				20		22
250 kVA						4		4
500 kVA	2	2				9	2	15
750 kVA		2						2

The total power generation capacity is 19,000 kVA, of which 2,000 kVA is reserved for dedicated power consumers and 17,000 kVA for mission personnel, including military

units (1,000 complex mission headquarters staff + 500 military observers + 500 civilian police + 10,000 troops (50 per cent self-sustained) + 600 traditional mission headquarters staff = 7,600 x 1.5 kVA + 50 per cent back-up = 17,000 kVA).

55. *Fuel equipment.* Provision is made for 2 complete ground fuel farms and 10 aviation fuel systems (2 for each mission headquarters and sector headquarters).

56. *Water treatment and bottling unit.* The provision of five units is required to supply drinking water in central mission locations: one unit each for both types of mission headquarters and one unit each for three sector headquarters.

57. *Medical and dental equipment.* Timely provision of medical services is considered a prerequisite for rapid mission deployment. Experience shows that deployment time lines of 30/90 days will be met only with pre-configured equipment. Therefore, provision is made to store two complete level II hospitals, three level I clinics and five headquarters clinics, one for each mission headquarters and each sector headquarters. Each level II hospital is able to provide medical services for troop formations as large as a brigade. The headquarters clinics provide emergency and primary health services to mission personnel that do not belong to formed units. Three level I clinics are provided as back-ups for military units that cannot deploy their own medical facilities in time.

58. *Observation equipment.* Provision is made to equip military observers and civilian police with night-vision devices and to provide supplementary equipment to military contingents. The standard ratio scale applied is 1:15, taking into account that military contingents are 50 per cent self-sustained.

59. *Security equipment.* Provision is made for walk-through metal detectors and luggage X-ray machines at headquarters entrances and cargo X-ray machines at mission airfields. Fragmentation jackets and ballistic helmets are required for international staff.

Supplies and services

Estimate: $3,648,100

60. Purchases of miscellaneous supplies, cleaning materials and office supplies are based on consumption totals for not more than 60 days. Medical supplies and drug sets are provided for each headquarters clinic, level I clinic and level II hospital. Provision is made for 30 days' emergency rations for 50 per cent of the overall strength of a traditional mission, i.e., 2,750 personnel (local staff not included).

61. Field defence stores are provided for all mission installations (100 per cent) and contingent facilities (50 per cent).

62. The cost estimate provides for stationery and office supplies ($371,800), medical supplies ($311,700), sanitation and cleaning materials ($130,800), rations ($1,127,000), tools ($84,800), uniform items and decals ($109,700), field defence stores ($859,600) and miscellaneous supplies ($652,700).

Public information programmes

Estimate: $208,800

63. Provision is made to produce and edit video and audio footage for public information purposes for both types of mission headquarters. The equipment proposed provides for mobile production of raw video and audio footage, which can then be edited, using professional video and audio equipment, for later broadcast.